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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YOO, REGINA M

ART UNIT

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1797

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,463	Applicant(s) HAMMOND ET AL.	
	Examiner REGINA YOO	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/06, 5/22/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Air treatment device" or "Air treatment agent dispenser" or "Sensor equipped dispenser for air treatment media".

Claim Objections

2. Claim 1 is objected to because of the following informalities: line 3, "sends" appears to be misspelled from "senses". Appropriate correction is required.
3. Claim 22 is objected to because of the following informalities: line 3, "explosion" appears to be misspelled from "expulsion". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 20 recites the limitation "the heater elements" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 18, 21-22 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Horikiri (JP 2001-087370).

As to Claims 18, 21 and 26, Horikiri ('370) discloses an air treatment device (1) comprising:

- a gas or vapor detector comprising a plurality of gas or vapor sensors (6a, 6b) and at least two sensor (6a, 6b; which senses the same gas or vapor when an odor is comprised of both an acidic and alkaline components – see paragraph [0031] of English machine translation);
- the gas or vapor detector comprises means to detect a threshold level or concentration of a gas or vapor (see English machine translation [0010]-[0011]);
- a means (7 and 8, as well as the shelf that the containers 8 and solenoid 11 sit on) to mount a source of air treatment agent (10a, 10b) to the device (1) comprising means to connect a receptacle (8) to the device (1) where the receptacle comprises the air treatment agents (10a, 10b) (see Drawing 1);

- a means (7, 9, 11, 12) to expel a portion of air treatment agent upon detection of a gas or vapor by the detector (see entire document, particularly [0023] of the English machine translation); and
- a process unit (13) which receives signals from at least both sensors (6a, 6b) in order to cause a portion of airborne treatment agent (10a, 10b) to be expelled (see entire document, particularly paragraphs [0023] and [0034], where the control panel 13 is deemed to be a processor as it possesses ability to actuate solenoid 11 and member 12 for expelling the air treatment agent based on the threshold level set and comparing this value with readings from the sensors 6a/6b).

As to Claim 22, Horikiri ('370) discloses an air treatment device (1) where the detector includes three or more sensors (see last two lines of paragraph [0034], which are capable of sensing non-target gas or vapor and both target and non-target gas or vapor; see also MPEP § 2114 which states that apparatus claims must be structurally distinguishable from the prior art and that manner of operating the device does not differentiate apparatus claim from the prior art if the prior art apparatus teaches all the structural limitation of the claim) and the processor (13) present within the device is capable of preventing the expulsion of the air treatment agent when the second sensor detects a signal completely or until the first sensor gives a signal at a higher threshold value than usual.

As to Claim 25, Horikiri ('370) discloses an air treatment device (1) wherein the air treatment expulsion means comprises a pump or aerosol (7a, 7b, 9) (see Drawing 1).

As to Claims 27-28, Horikiri ('370) discloses an air treatment device (1) wherein the air treatment agent (10a, 10b) comprises an agent comprises a deodorant that is capable of masking, neutralizing or retarding malodor or unwanted odor (see entire document, particularly paragraphs [0008], [0010]-[0013] and [0021]).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri (JP 2001-087370) as applied to claim 1 above, and further in view of Dearling (4084732) or Kuhn (5364027).

Horikiri ('370) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

While Horikiri ('370) discloses an air treatment device which provides an active dispensing device for the mounted source of air treatment agent, Horikiri ('370) does not appear to specifically teach that the mounted source of air treatment agent is also passively emanated from the device.

It was well known in the art at the time of invention to both actively and passively provide an air treatment agent from one device. Dearling ('732) exemplifies an air treatment device (10) where a source of air treatment agent (12) (see Col. 2 lines 26-31) is actively (by spraying the agent out into the air through 52) and passively emanating (by spraying onto 42 where the air treatment agent is absorbed or adsorbed and in turn imparted to the carrier segment 40) in order to provide the air treatment agent immediately as well as to provide the agent over a longer period of time (see Col. 4 lines 8-29). Kuhn ('027) also exemplifies that an air treatment agent dispenser device (1) where the air treatment agent (within 2; see Col. 2 lines 22-23) is both actively provided (through the spray nozzle 8) and passively (through the wick 4, 10, 16) emanated in order to combine continuous and instant operation of a dispenser of an active material to provide the active material to the atmosphere.

It would have been obvious to one of ordinary skill in this art at the time of invention to provide means so that the air treatment agent of Horikiri is both actively and passively provided into the atmosphere in order to provide the ability to both enhance the atmosphere with a burst of dispersible material for immediate effect and to provide a longer lasting, continuous, evaporative effect as exemplified by Dearling or Kuhn.

Thus, Claim 19 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Horikiri ('370) and Dearling ('732) or Kuhn ('027).

11. Claims 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri (JP 2001-087370) as applied to claim 1 above, and further in view of Kvietok (20040033171).

Horikiri ('370) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

While Horikiri ('370) discloses an air treatment device where the means to expel a portion of air treatment agent comprises a spray/pump/lever, Horikiri ('370) does not appear to specifically teach that the where the means to expel a portion of air treatment agent comprises a heater element where the heater element is actuated upon detection by a detector such as a person detector in order to increase the emanation of the air treatment agent and located proximate to a diffusion wake.

It was known in the art at the time of invention to provide a heater element as the means to expel a portion of air treatment agent in an air treatment device. Kvietok ('171) discloses an air treatment device (20) comprised of means to mount a source (28, 30

with wick 38) of air treatment agent (32, 34) to the device (20) (see Figures 6-8) and means to expel a portion of air treatment agent (32, 34) comprises a heater element (40, 42) where the heater element (40, 42) is actuated upon detection of a stimulus by a detector (claims 11 and 27) such as a person detectors (i.e. motion detector; see claims 12 and 28, and p. 6 [0056]) and is located proximate to a diffusion wake (see Figures 6-8), and a processor unit (see p.5 [0046]-[0049] and p.6 [0054]) which causes a portion of airborne treatment agent to be expelled after receiving signals form the detector (claims 11 and 27) in order to emanate the air treatment agent into the atmosphere (see entire document, particularly p.5 [0044]).

It would have been obvious to one of ordinary skill in this art at the time of invention to provide a heater element as the means for expelling an air treatment agent within a source of air treatment agent after receiving a signal from a detector in the device of Horikiri in order to provide a portion of air treatment agent to the atmosphere as desired by a user as shown by Kvietok.

Thus, Claims 20 and 23 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Horikiri ('370) and Kvietok ('171).

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri (JP 2001-087370) as applied to claim 1 above, and further in view of Barradas (5735918).

Horikiri ('370) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

While Horikiri ('370) discloses an air treatment device includes a gas or vapor detector, Horikiri ('370) does not appear to specifically teach that the detector also includes a person detector where the processor unit allows airborne treatment agent to be expelled in response to a signal from one or more of the sensors, only when the person detector gives a signal and for an interval thereafter.

It was well known in the art at the time of invention to provide a person detector in an air treatment device. Barradas ('918) exemplifies an air treatment device (10) which includes a person detector (22) which gives a signal and for an interval thereafter to cause airborne treatment agent to be expelled in response to such signal in order to automatically operate the device so that the scent is released from the device into the room only when a person enters/is present in the room or in the vicinity of the device (see entire document, particularly Col. 1 lines 4-8 and 52-59 and Col. 3 lines 26-36). It would have been obvious to one of ordinary skill in this art at the time of invention to provide a person detector in the device of Horikiri in order to provide the air treatment agent only when a person is present in the vicinity of the device as exemplified by Barradas.

Thus, Claim 23 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Horikiri ('370) and Barradas ('918).

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13. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horikiri (JP 2001-087370) as applied to claim 1 above, and further in view of Sunshine (6418783).

Horikiri ('370) is relied upon for disclosure described in the rejection of claim 1 under 35 U.S.C. 102(b).

While Horikiri ('370) discloses an air treatment device where the gas or vapor detector comprises a metal oxide sensor, Horikiri ('370) does not appear to specifically teach that the detector is comprised of a conducting polymer sensor.

It was well known in the art at the time of invention to utilize a conducting polymer sensor as a gas or vapor detector. Sunshine ('783) exemplifies a gas or vapor detector (100) wherein the detector (100) is comprised of a conducting polymer sensor in order to detect/sense the presence and concentration of a wide variety of specified vapors (see entire document, particularly Abstract, Col. 5 lines 52-61, Col. 10 lines 34-49, and Col. 11 lines 5-11). It would have been obvious to one of ordinary skill in this art at the time of invention to provide a conducting polymer sensor in the detector of Horikiri as an alternate sensor means in order to sense/detect gas or vapor as exemplified by Sunshine.

Thus, Claim 24 would have been obvious within the meaning of 35 U.S.C. 103(a) over the combined teachings of Horikiri ('370) and Sunshine ('783).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REGINA YOO whose telephone number is (571)272-6690. The examiner can normally be reached on Monday-Friday, 10:00 am - 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth L McKane/
Primary Examiner, Art Unit 1797

RY